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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/081,398

02/21/2002

Zheng Haihong

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EXAMINER

HAN, CLEMENCE S

ART UNIT

PAPER NUMBER

2668

DATE MAILED: 02/23/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.		Applicant(s)	
	10/081,398		HAIHONG, ZHENG	
	Examiner		Art Unit	
	Clemence Han		2668	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
 - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
 - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 February 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-10 is/are allowed.
- 6) ☒ Claim(s) 11, 13 and 15-25 is/are rejected.
- 7) ☒ Claim(s) 12 and 14 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 February 2002 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>9/3/2002, 9/9/2002</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Drawings

1. Figure 5A should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Objections

2. Claim 1, 5, 9, 10 and 25 are objected to because of the following informalities: The acronyms, (MPLS, LSP, EXP, RSVP, LDP and RSVP RESV), should be spelt out. Appropriate correction is required.
3. Claim 9, the extra period at the end of the claim should be removed. Appropriate correction is required.

4. Claim 13 is objected to because of the following informalities: The second line should be changed to "ensuring the resource reservation along the label switched path". Appropriate correction is required.

5. Claim 15 is objected to because of the following informalities: The acronym in the line 11 should be (EMPLS) instead of (MPLS). Appropriate correction is required.

Claim Rejections - 35 USC § 112

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. Claim 15-25 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

8. Claim 15 recites the limitation "the enhanced Multi-Protocol Label Switching (MPLS) network" in line 11. There is insufficient antecedent basis for this limitation in the claim.

9. Claim 25 provides for the use of reserving resources on an MPLS based path in a network, but, since the claim does not set forth any steps involved in the method/process, it is unclear what method/process applicant is intending to

encompass. A claim is indefinite where it merely recites a use without any active, positive steps delimiting how this use is actually practiced.

Claim Rejections - 35 USC § 102

10. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

11. Claim 11 and 13 are rejected under 35 U.S.C. 102(e) as being anticipated by Goguen et al. (US 6,665,273).

Regarding to claim 11, Goguen teaches a method for dynamically modifying resources for a label switched path in a network: (a) identifying a connection, wherein the connection includes one or more flows of packets that has an associated resource requirement (Column 2 Line 26-32); (b) determining resources for the one or more flows of packets associated with the connection (Column 2 Line 26-32); (c) establishing the label switched path, wherein a first label is associated with the label switched path and the packets of the one or more flows of packets associated with the connection (Column 2 Line 32-40); (d) reserving resources along the label switched path for the one or more flows of packets

associated with the connection by sending a first message that contains the first label along the label switched path that reserve the resources (Column 2 Line 41 – Column 3 Line 5); (e) forwarding the one or more flows of packets associated with the connection along the label switched path (Column 3 Line 18-20); (f) determining whether a change of the resources requirement has occurred (Column 7 Line 65-66); and (g) when a change of the resource requirement has occurred, modifying the resources reserved along the label switched path by sending a second message that contains the first label, wherein the second message alters the resources reserved while avoiding establishing a new label switched path (Column 8 Line 3-6), whereby processing is minimized.

Regarding to claim 13, Goguen teaches ensuring the resource reservation is along the label switched path by configuring the second message with the first label such that the second message follows the label switched path (Column 8 Line 41-47).

Claim Rejections - 35 USC § 103

12. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

13. Claim 15-17, 20-22 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Goguen et al. in view of Reeves et al. (US Pub. 2002/0080794).

Regarding to claim 15, Goguen teaches a router for forwarding packets to a final destination over an Multi-Protocol Label Switching (MPLS) network, comprising: (a) a transceiver for receiving and transmitting each packet of one or more flows of packets from a source to a destination (R's in Figure 2); (b) a labeler 122 for labeling each packet with a label; (c) a pathmaker 120 for assisting in establishing a label switched path along which each packet is forwarded between an ingress router and an egress router of the enhanced Multi-Protocol Label Switching (MPLS) network, wherein the label switched path corresponds to the label of each packet; (d) a reserver for assisting in reserving resources along the label switched path (Column 2 Line 41 – Column 3 Line 5), wherein the reserver further assists in dynamically modifying resources reserved along the label switched path while avoiding establishing a new label switched path (Column 8 Line 3-6); and (e) a scheduler that forwards each received packet along the label switched path towards the egress router, wherein the egress router removes the label and forwards each packet (Column 3 Line 18-20). Goguen, however, does not teach explicitly a label according to a forwarding equivalence class (FEC) that corresponds to the label, wherein the forwarding equivalence class (FEC) is based

on a kind of data included with each packet. Reeves teaches a label according to a forwarding equivalence class (FEC) that corresponds to the label, wherein the forwarding equivalence class (FEC) is based on a kind of data included with each packet [0038]. It would have been obvious to one skilled in the art to modify Goguen to label according to a FEC as taught by Reeves in order to comply with MPLS standard [0057].

Regarding to claim 16, Goguen teaches the pathmaker 120 and reserver (label allocation module in Column 2 Line 3) operate independently from one another while maintaining a common association according to the label.

Regarding to claim 17, Reeves teaches a label information base 110 that stores a list of labels and a mapping of a relationship between each label 112g and forwarding equivalence class (FEC) 112.

Regarding to claim 20, Goguen teaches the reserver assists in using RSVP (Resource Reservation Protocol) to reserve resources along the label switched path for packets of the same flow (Column 2 Line 41 – Column 3 Line 5).

Regarding to claim 21, Goguen teaches the reserver assists in transmitting a message to reserve the resources along the label switched path, wherein the message includes the label (Column 2 Line 41 – Column 3 Line 5).

Regarding to claim 22, Goguen teaches the label is a first label and the

reserver assists in transmitting a message for reserving resource that includes a second label such that the message follows the label switched path but is discerned from packets containing the first label (Column 8 Line 41-47).

Regarding to claim 24, Goguen teaches the transceiver, labeler, pathmaker, reserver, and scheduler are enabled to operate as an ingress enhanced label switching router, an intermediate enhanced label switching router, and an egress enhanced label switching router (R's in Figure 2).

Allowable Subject Matter

14. Claim 1-10 are allowed.

15. Claim 12 and 14 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

16. Claim 18, 19 and 23 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

Conclusion

17. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The following patents are cited to further show the state of the art with respect to the invention in general.

U.S. Pub. 2002/0103924 to Nomura

U.S. Pub. 2003/0118019 to Mark et al.


U.S. Pub. 2004/0202148 to Kuehnel

U.S. Pub. 2006/0034292 to Wakayama et al.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Clemence Han whose telephone number is (571) 272-3158. The examiner can normally be reached on Monday-Thursday 7 - 5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chieh Fan can be reached on (571) 272-3042. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


STEVEN NGUYEN
PRIMARY EXAMINER

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